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ABSTRACT

This study examined how teachers in a geographically remote location experienced participation in a collaborative, professional development group project designed to develop student performance assessment tools. Participating teachers completed focus group and individual interviews as well as personal teaching efficacy surveys. All teachers new to the jurisdiction also completed the survey so comparisons could be drawn between participants and nonparticipants. Participants felt that being away from the normal routines of teaching and supervision allowed them to reflect on their practice, discuss strategies, and really talk to colleagues. The experience made them feel professional and valued as people. Teachers reported increased curricular knowledge and changes in expectations for students as a result of working with the project. They noted that their school administrators facilitated participation in the project. Teachers mentioned shared philosophy as an important factor in the project. Challenges to collaboration included lack of time, divergent staff interests, and school culture. Interview data showed increased contact among project members over the course of the year. Efficacy beliefs were strengthened and enhanced by participation in the project. Many participants conducted inservice presentations on the subject to other teachers in the jurisdiction. (Contains 38 references.) (SM)

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Teacher Collaboration in a Geographically Remote School Jurisdiction

Introduction

The purpose of the study was to describe how teachers in a geographically remote Alberta school jurisdiction experienced participation in a collaborative, professional development group project whose central focus was developing student performance assessment tools. The data collected provide insights into how teachers' beliefs about teaching develop and change, and how their personal teaching efficacy beliefs are influenced by a collaborative project group experience.

In geographically remote schools, opportunities for consultation and discussion with other teachers who teach the same subjects or grade are rare. School staffs in these schools often are comprised of teachers new to the profession. Professional development opportunities that are available do not often provide ongoing support of new techniques or strategies, but offer discrete subjects of interest, with little sustained support. This context served as the genesis of the ongoing teacher collaboration project, the preliminary findings of which are presented here.

Context of the Study

This ongoing study is being conducted in Northland School Division No.61 (NSD), a geographically large provincial school jurisdiction covering the top half of the province of Alberta, Canada. With the amalgamation of school districts that took place in Alberta in the early nineties, some boards have schools scattered across large geographic ranges. None have a mandate similar to that of NSD. An excerpt from the orientation handbook for new staff provides a glimpse into the magnitude of what NSD is expected to cope with on a daily basis,

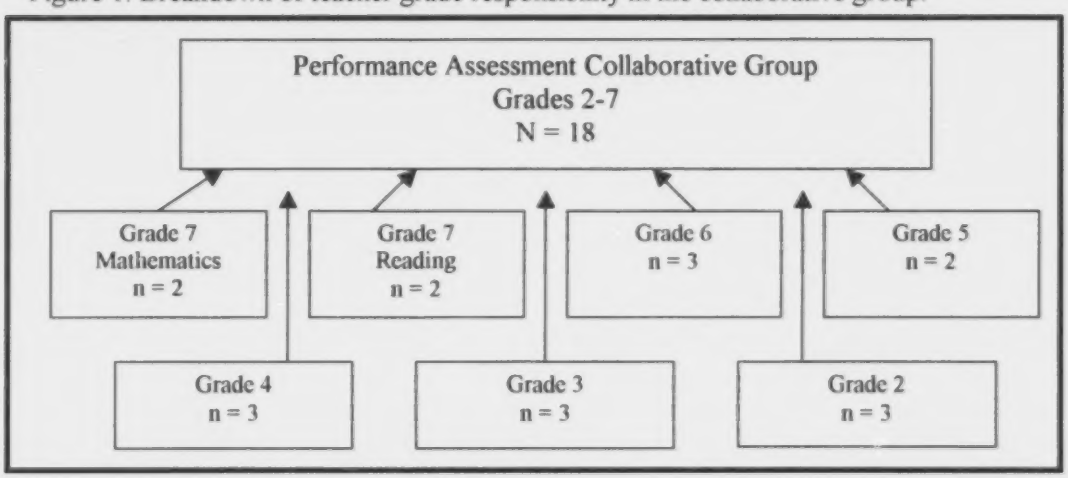
> Northland is unique because of its geographic size. It is unique because of its responsibility for all unorganized territory in the northern half of the province. It is unique because of the communities and children (small geographically remote hamlets and villages, schools on Federal Indian Reserves and Provincial Metis Settlements, predominantly students of Aboriginal descent) we serve. (Northland School Division No. 61, 1999)

NSD has its own act, *The Northland School Division Act, 1984,* that delineates community responsibilities and decision making for education in its 25 member communities. Schools range in enrolment from 11 students to 421students, with grade configurations including K-6, K-9, K-12, and 7-12. Of the present 25 schools in the jurisdiction, only 5 schools have organizational plans where student numbers permit more than one class of the same grade. Professional isolation becomes a very real concern when there is only one teacher of Grade 2 in the school, and the nearest teacher who teaches the same grade is 50 km away over a gravel road! This unique configuration and physical isolation of teachers in remote geographic areas indicates a need for creative solutions to teacher support and professional development. With the focus in Alberta on accountability and on improved student results, many jurisdictions are struggling with ways to provide the skills and tools teachers need in order to help students obtain the results parents and government are demanding. Like most jurisdictions in Alberta, improved student achievement is a desired outcome stated in school improvement plans (Alberta Education, 1995) for schools in NSD. In recent years, assisting teachers with efforts to improve student results as measured by the annual provincial achievement tests has been a major goal of the jurisdiction. NSD students seemed to do better on the parts of the tests that reflected actual student work – the writing assignments on the language arts tests. Based on this observation, the jurisdiction struck a committee to develop performance-based tasks in reading and in mathematics that were pertinent to the needs

and interests of rural and aboriginal students, and based on outcomes common to provincial curricula.

In 1998-1999, this project initially involved writing performance assessment tasks in reading and mathematics for all grades three and six students within the jurisdiction. Seven teachers, representative of all geographic areas of the jurisdiction, were invited to participate in this project. Teacher response in the schools was so favorable, that the project expanded to grades two and five in 1999-2000, and had 12 teachers involved. For the 2000-2001 school year, grades four and seven were added and the number of teaching staff involved in the project grew to 18. At each of the four meetings held during the school year, the 18-member collaborative group met at the beginning of each session, then split into 7 grade specific sub-groups for the creation and production of materials. (see Fig. 1)

Figure 1. Breakdown of teacher grade responsibility in the collaborative group.



The teacher response, to what might be viewed as extra work and more assessment, was gratifying and overwhelming. Many teachers who came to the project initially were quite discouraged over the student achievement statistics, and showed little optimism that

they had any power to positively impact those results. The tension between what students know and can do in performance work in the classroom and the way in which knowledge is measured and assessed on provincial tests is irresolvable for many teachers. Factors, such as socio-economic conditions in the community, level of parent education, and community attitudes towards education, are beyond the control of school personnel, but are believed to impact student achievement. Working together, staff designed performance assessment tasks, discussed curricular outcomes and classroom strategies, materials, and the plethora of small happenings that make up teachers' work days as they wrestled with how they could address poor student achievement directly in their classrooms.

This paper describes the preliminary findings regarding how a group of teachers experienced participation in a collaborative, professional development group project in which they designed, wrote, implemented, and delivered performance assessment tasks to selected grades in NSD during the 2000-2001 school year. It provides insights into how teachers' beliefs about teaching develop and change, and how their efficacy beliefs are affected by an ongoing group experience.

Existing Research and Literature

Extensive research has been conducted on the subject of teacher efficacy since Bandura (1977) first proposed his theory of self-efficacy. Teacher efficacy has been studied in relation to the teacher's gender (Anderson, Green, & Loewen, 1988), the socio-economic levels of students (Bandura, 1993; Rose & Medway, 1981), the stage of teachers' career: beginning, middle, or approaching retirement (Bandura, 1993; Hoy & Woolfolk, 1990), and with teachers' sense of responsibility for student achievement

(Ashton & Webb, 1986; da Costa, 1995; Guskey, 1986). It has been examined with pre-service teachers, (Woolfolk & Hoy, 1990b), with special education teachers, and teachers at specific grade levels and specific school levels, elementary, junior, and senior high (Anderson et al., 1988; Raudenbush, Rowen, & Cheong, 1992;Bandura, 1993). It has been examined as a function of level of teacher education (Ross, Cousins, & Gadalla, 1996).

Recent research into the efficacy construct suggests that more research needs to be conducted (e.g., Tschannen-Moran, Woolfolk-Hoy, & Hoy1998) and that (a) the research explore sources of efficacy beliefs and the tasks about which teachers feel more or less efficacious (e.g., Herbert, Lee, & Williamson, 1998; Deemer & Minke, 1998), (b) the research needs to be qualitative in nature and capture not just a numerical change on a questionnaire, but be informed by teachers' thoughts and ideas (e.g., Pajares, 1997; Herbert, Lee, & Williamson, 1998; Soodak & Podell, 1998); (c) the research examine the influence of factors known to affect efficacy such as collaboration (e.g., da Costa & Riordan, 1997), school climate (e.g., Smylie,1988; Welch,1998), teacher experience (e.g.,Bandura,1998), and stage of career (e.g., Hoy & Woolfolk,1990); (d) attempts to assess the malleability of efficacy be made (e.g., Soodak & Podell, 1998); and (e) the impact of staff development activities such as a collaborative project group experience on the sustenance and enhancement of efficacy be examined (e.g., Ross, 1998).

While most writers are enthusiastic about collaboration, and advocate its use, no particular way of forming collaborative project groups is suggested as superior. Collaboration is perhaps most frequently discussed within schools or within particular departments in schools. Collaboration as a way to co-ordinate services for special needs

students is one model of collaboration referred to in the literature (Friend & Cook, 2000). Other collaborative project groups reported in the literature include peers for support and collaboration in high school settings (da Costa, 1995; Riordan, 1996), collaboration for curriculum development (Young, 1993), and special interest collaboration in schools, such as team teaching (Walther-Thomas, 1997), peer coaching (Joyce & Showers, 1995), mentor relationships (Friend & Cook, 2000), professional discussion (Ross, 1995), and scores of other small, but useful activities.

Collaboration can be very effective in promoting school change and renewal, but much depends on leadership (Friend & Cook, 2000) from a key individual, such as the principal, a university researcher, or enthusiastic staff member to initiate the collaboration and encourage and manage the experience.

Lortie's (1975) conclusion that teaching, compared to other professions, is an isolated and individual activity, and that this isolation contributes to the proliferation of poor teaching practices, has been supported, restated and discussed for 25 years. Little (1987), Ellis (1993), and Hall (1993) have all reported negative aspects of teaching they attribute to isolation.

Other professions use consultation and collaboration as an integral part of their daily work. Sergiovanni (1992) advocates the use of collegial practices to address the detrimental aspects of isolation for teaching professionals. Research on training and staff development indicates that there are benefits from colleagues and peers learning together (Joyce & Showers, 1988). Collaboration promotes an increased range of possible solutions to problems, pools knowledge from a range of professionals, provides an

increased understanding of complex situations, and can involve all members of a school community or group in ensuring quality educational services for students (Welch, 1998).

By not only surveying changes in efficacy over the course of a year, but also by conducting extensive interviews with some of the teachers surveyed, this study endeavoured to close some of the gaps existing in the efficacy literature and make the case that collaboration increases, or at the very least, stabilizes and enhances present levels of personal teaching efficacy.

Method and Data Sources

This study used interpretive methods and collected data from several sources. Participants in all parts of the study were teachers employed in NSD during the 2000-2001 school year. The district serves a diverse, mainly aboriginal, population of approximately 2600 students scattered over the upper half of the province of Alberta. The district employs approximately 220 teachers. For September 2000, 85 new teachers were hired. Half were in the very early stages of their career (i.e., new to the teaching profession) and the rest were new to the jurisdiction with varying degrees of teaching experience and experience living and working in small schools and communities.

Participant group. The group of teachers involved in the collaborative professional development project formed the interview participant group. Administrators were asked to nominate teachers for work on the collaborative group, and selections were made from the nominations based on grade level fit, representation of all geographic areas of NSD, and minimal impact of absent teachers to any one school. Of the teachers (N = 18) comprising the group for 2000-2001, four teachers worked in the collaborative group previously; 14 were new to the group. A focus group (n = 15) of teachers involved in the

project was convened in September 2000. The purpose of the study was explained to all members of the group and the focus group provided a forum for the generation of lines of questioning pursued in the in-depth semi-structured interviews. The in-depth interviews, each lasting between 45 to 90 minutes, were held with selected participants (n = 4) following each of the four meetings of the entire collaborative project group. The interview participants were selected because all were new to the collaborative project group in September 2000, represented a range from 2 to more than 10 years of teaching experience, had been employed by the jurisdiction less than 3 years, were representative of the grades involved in the task development, and were reflective about their practice. All members of the collaborative project group were asked to complete Gibson and Dembo's (1984) personal teaching efficacy items from their Teacher Efficacy Survey (TES). As well, all teachers new to the jurisdiction in the 2000-2001 school year were also asked to complete the survey so that comparisons could be drawn between the responses of the teachers in the collaborative project group and those outside of this group. The same people will complete the personal teaching efficacy items of the TES again in May 2001.

All interviews were recorded and transcribed. Transcripts were analysed after each focus group or individual interview, and emerging themes, observations from the meetings, and ideas were pursued at subsequent interviews.

Data analysis. The analyses of the semi-structured interviews and the focus group interviews were conducted through the use of narrative accounts to support emerging themes. Observations and reflections from the meetings of the collaborative project group were merged with the insights gained from the interview data.

The data from the TES were compared and provide support for the narrative accounts from the interviews. The use of the personal teaching efficacy sub-scale of the TES helped to establish a baseline of participant teacher efficacy. It also added a dimension to data collection that will enable a more complete picture of the influence work in a collaborative project group had over the duration of a school year as contrasted with the experience of those who did not participate in a formal group.

Findings and Discussion

Findings at this point are preliminary and tentative. The first administration of the TES is available and allows us to compare initial personal teaching efficacy scores of teachers in the collaboration project group to other teachers new to NSD but not involved in the collaborative project. Initial TES scores for the collaborative project group (n = 13) were 3.79 as compared to the group of new teachers to the jurisdiction (n = 23), which are 3.24. Broad emerging themes from the interviews include pragmatics of participation in a committee external to the school, reported changes made in classroom practice, interaction with others at the school, challenges to collaboration, and observations of changes in the group over time (see table 1).

The Interview Participants

Martha is a teacher with less than three years with NSD. Although she has taught in farming communities in northwestern Alberta for many years, this job is her first experience with junior high school students. She teaches Language Arts to grade 7, 8 and 9 students in a K-9 school having fewer than 200 students. The school is located on a Provincial Metis settlement approximately 60 kilometers (37 miles) from the nearest town.

Table 1. Benefits and Challenges to Collaboration

Personal/Professional Benefits	Instructional Benefits	Challenges
• Time • Feeling like a professional • Advance Knowledge • Increased knowledge of jurisdictional operations • Valued as a person • Freedom to discuss professional topics without censure	• Increased curricular knowledge • Increased student expectations • Shared philosophy • Acknowledged administrator support	• School culture • Teachers as individuals • Shared teaching vision

There are three junior high school teachers in her school. Martha believes all junior high school staff must present a united front to the students, share information with each other, and be cognisant of issues affecting the students and community. In a small community, it is imperative that all staff provides the same information to parents and community members and holds the same expectations for students. She works closely with her colleagues, but feel they could be a closer team. Martha has a particularly close working relationship with one of her junior high school colleagues. She feels this collegial relationship is critical to her sense of doing a good job in the school.

Staff at Martha's school are aware of her work with the collaborative project group. The principal is supportive, but some experienced staff are critical of the work of the group. Martha, being relatively new to the jurisdiction, is uncertain as to whether she should be influenced by other staff opinions.

Michael has taught junior high school for ten years on a Federal Indian Reserve in a school run by the band. This year he has an elementary class in a K-6 school with five other teachers. The school is located on a provincial Metis settlement. Children bus distances of 25 to 40 kilometers (16 to 25 miles) to neighboring centers to complete junior and senior high school. He finds the switch from older to younger children challenging but enjoyable.

The staff at the school are experienced and supportive of Michael's work on the committee. It was expected that he would be the school's representative on the collaborative project group. The staff are interested in his work, and feel that having a representative from their school gives them an "edge" in knowing what students might be asked on the jurisdictionally administered assessments in April of each year.

The principal is also supportive of Michael's work with the collaborative project group and in the school and provides an opportunity at staff meetings for him to update other staff.

Mary is in her second year of teaching at a large elementary school in an economically booming community that draws students from a large Federal Indian Reserve as well as non-status aboriginal and white students. She is one of three teachers who teach the same grade in this school of over 400 students. Prior to joining the staff at her present school, Mary taught for six months at a band run school on the Federal Indian reserve on which many of her present students live. Mary is enthusiastic about her work with the collaborative project group and has prepared an inservice session on her work for the staff of approximately two dozen at her school. Due to the size of her school,

Mary's activities on the committee would go largely unnoticed if she did not make a point of keeping staff informed.

The principal of the school is supportive, and the attitude of most staff is neutral toward the collaborative project group's work. Several other teachers on staff were interested in serving as members of the collaborative project group, so Mary feels honoured that she is the school's representative.

Miranda is in her third year at a K-12 school of nine teachers. The school is not on a Federal Indian Reserve, but serves a status aboriginal student population. She is a trained Montessori teacher and taught in a private Montessori school for 10 years before completing her teacher education degree and coming to her present location. Of nine staff who came to her school when Miranda did, only three remain. Four new staff were hired this year at this school.

The principal is supportive of her collaborative project group work now, but this was not always the case. While Miranda had been interested in the materials produced by the collaborative project group in previous years, staff at the school was mostly unaware of the work of the committee. Miranda organized an inservice session on her work at a school professional development day and was gratified by the enthusiastic response of her teaching colleagues and her principal.

Benefits of Participation in the Collaborative Project

A main reason stated for the ease in which collaboration occurs away from the school had to do with the provision of time. Participants felt that being away from the normal routines of teaching, supervision, and personal lives allowed them time to reflect on their practice, discuss strategies, and "really talk to colleagues." Other benefits

included: (a) feeling professional, having the knowledge of program information and changes before others – being part of an inner circle of people influencing the direction of the NSD; (b) feeling free to talk about professional topics without censure from staff; (c) having knowledge of the operations of the jurisdiction outside of school; and (d) being valued as a person, with interests and opinions, not just a teacher in a school.

Miranda stated being part of the group allowed her "to give myself permission" to change ways of doing things and the confidence to step outside of her present practice to make changes.

Changes in practice. Each interview (see appendices A and B for the focus group and preliminary individual interview schedules, respectively) probed for changes in classroom strategies instituted since the last meeting of the group. Increased curricular knowledge, particularly for elementary teachers, and changes in expectations for students were two areas cited repeatedly in the interviews conducted. It is not surprising that teachers felt their curricular knowledge increased as a result of their work with the collaborative project group. The nature of their work demanded frequent reference to specific outcomes of the Alberta Elementary and Junior High School Programs of Study (2000). Much of the discussion in grade level groups was around interpretation and application of the curricular documents. Mary shared how she had grown as a teacher as a result of her work with the collaborative project group,

> You look at curriculum differently. I'm pretty new at teaching and in Language Arts there are 150 outcomes you have to meet. The other lady in my group said you group them – you do this, this and this – it really helped me simplify things".

It is noteworthy that teachers should state so emphatically that their curricular knowledge increased, particularly since it is a teacher's responsibility to interpret and

deliver the provincially mandated program. All teachers base instructional plans on these documents. Yet, the opportunity to gain in-depth knowledge of the nuances of curricular design or outcomes appears not to be happening as expected in schools or through provincially sponsored inservice opportunities.

At the elementary level, three of four core curricular areas have experienced major revision since 1993. Since elementary teachers are usually generalists, internalizing and interpreting those changes is a large undertaking.

While teachers in the junior high school group reported better understanding of the program, increased curricular knowledge was not as striking as with the elementary group. This could be because junior high school teachers involved in this study are subject specialists, and work mostly with one core curricular area. Thus they have more time to devote to depth and breadth of knowledge in their subject area of expertise.

Increased student expectations. The second area in which teachers reported considerable changes in their practice as a result of participation in the collaborative project group was in the area of their expectations for student outcomes. Teachers base their expectations of students on their perceptions of (a) what is expected in curriculum and (b) what students can handle intellectually. In remote schools, serving culturally diverse groups, expectations may be rooted in stereotypes of student ability or students' past performance. Martha pointed out,

> I think I've just raised my expectations all around. I do think if we are honest teachers and we're white we do have a hint in the back of our minds where, [we say] it's OK; they're just native kids. And I know with some of those kids; I've done the best I can. But now I think, if I had pushed harder, they probably would have done better. And I'm wondering if there are more like me. We have to remember they are kids. It doesn't matter what colour. Their circumstances are different.

In most NSD schools, there are no similar classes to compare to. The conversations in the collaborative project group seemed to give teachers permission to expect more, even if other staff at their school were not. During one of her interviews, Martha went on to say,

> I think looking at the performance assessment tools made me realize that I could push harder.

The attitude of students can slow what teachers expect them to achieve. Several teachers reported reluctance on the part of their students to be challenged. Although an inexperienced teacher may believe a particular assignment appropriate, students' protests over length or difficulty may cause a teacher to decrease expectations in response to student demands. Discussions held during the collaborative project group meetings gave teachers more realistic ideas of what other teachers expect and insist on with similar students. This allowed teachers to return to their classrooms with increased certainty regarding the sorts of expectations they held for their students; these teachers also gained the conviction that their expectations were reasonable and that they were not asking too much of their students. Michael shared that as a result of his conversations with colleagues in the collaborative project group he was much more confident,

> It lets you know where your expectations should be. I'm more aware of what it is when I make those questions up . . . . Teaching-wise I see a huge benefit in that I'm a lot more aware of what expectations I can have for kids in [my class]

Similarly, Martha argued,

> It has changed my approach in Grade 7. I'm more demanding of them. We're getting into a higher level of questioning. And it's not easy, but they can do it.

Mary also supported this point of view when she concisely stated,

> I've already upped the ante for several of my students.

School administrator support. Teachers spoke of the support of their school administrator in facilitating their participation in the collaborative project group. Most felt that their work on the committee was supported and valued. One teacher felt that it was through her work on the committee that the value of the work of previous years' committees was appreciated and put into action at her school. Several reported that they would not have participated without the direct encouragement of their administrator. Martha related how her principal made arrangements so she could participate.

> My principal rearranged the whole schedule so I could come. I was not a supporter, as you know. I heard conflicting things about the work of the group from other teachers in the school. But it was very important to the principal that I come and he made it easy for me to take part. I wouldn't come without a certified sub and he arranged that.

No one mentioned that the school administrator could be the catalyst in formation of a similar group at their own school. It is possible that the specific nature of the assessment work they were engaged in precluded them from seeing their school principal in a professional development leadership role.

Shared philosophy. Shared philosophy was mentioned as an important factor in the collaborative project group. Several teachers assumed they had been invited to participate in the collaborative project group project because they were known to "work well together".

Challenges to Collaboration.

Teachers were enthusiastic about the opportunities provided for collaboration afforded by the meetings of the collaborative project groups. Initially they reported that collaborative groups such as this could not take place within a school. Reasons cited were lack of time, divergent interests of staffs, and the need for someone to "spearhead" and

encourage the group. Some reported that if the topic was of significant interest to school staff or if it was presented in a favourable way to staff, it might be possible to establish and maintain such collaborative groups. Some teachers were emphatic, and remain emphatic; that it would not be possible to initiate groups such as the one they are presently involved at their school with present staff. In the most recent interviews, there seemed to be a softening of this stance in several teachers. More analysis may reveal that teachers gained collaborative skills in the collaborative project group that they were able to translate into practice at the school level. It may be that the experience gained by participating in the collaborative project group allowed staff to see new possibilities at the school level that they could not see previously.

School culture. Some teachers stated that the culture of their particular school would not permit collaborative processes such as experienced in the district wide collaborative project group. School size may influence this. All teachers sharing this view came from relatively small schools. Staffs do range in size, and the dynamic of a staff of 6 can be quite different than that of 23. In larger staffs, groups of individuals with similar beliefs and attitudes can influence the climate and control decisions – making it possible for staff with the desire to undertake collaborative ventures to do so. In schools with small staffs, it seems that once individuals are slotted into particular roles, they are destined to remain there.

There was hesitancy in the belief that climates of professionalism exist in schools. Several teachers felt freer to discuss issues they deemed of a professional nature in the district wide collaborative project group than they did within their own schools. Mary shared that,

> Getting away to Peace River makes me feel professional. Talking about educational issues too. You don't get a lot of chatter around the staff room about stuff like that. It's nice meeting with other adults who are high-minded.

Miranda echoed this notion with the following comment, "You don't want to come across as too much of a keener." Several of the teachers likened the atmosphere in the school to that of a household: everything is familiar, but not really exciting.

Teachers as indivuals. Teachers spoke of being slotted into roles in their schools and not feeling free to deviate from what they perceived to be others' conceptions of them. Miranda shared that,

> I'm not confident in sharing that [with school staff]. When I come here, I'm sharing, but I don't have to work with you or I don't have to impress you. Sometimes I think, in my culture, colleagues become competitive and unfeeling.

Teachers reported feeling refreshed, rejuvenated, and ready to go back to their school and try the new strategies or ideas their colleagues in the group had suggested.

The idea of recognition as a person and not as "the grade 5 teacher" was important to the respondents. They spoke of conversations about personal reading interests, life experiences. Miranda emphasized that she needed "recognition that my personhood is important." Although time to connect with colleagues regarding personal issues was not extensive in the collaborative meetings, the structure of the collaborative project group, the organization of the two-day working sessions, time away from school, family, and community responsibilities, cumulatively did provide substantially more time to get to know colleagues as individuals than the time available in a school setting ever would.

Shared teaching vision. Junior high school teachers placed greater emphasis on the importance of working with individuals with shared ideas than did elementary level teachers. Perhaps this was due to the organizational nature of junior high schools, with

subject specialists circulating through the same group of students, that attention to shared philosophies, strategies and the need to share information about students and provide the same information to parents and community was seen to be more critical. Martha described it as

> Because the group [of students] is small and because the community is small, I can't know something about a kid and not share it with the others because that parent might come and talk to them, and if we haven't shared our information, you could be saying one thing to a parent, and I could be saying another and then they [the parents] are confused.

For the elementary level teachers, differing philosophies did not play as large as role in their day-to-day school activities.

Changes in the Group

The observed changes in the group since September were remarkable. Interview data show increased contact among collaborative project group members over the course of the year. Teachers were bringing materials to the meetings to share with other group members. The meetings are being used as venues for information exchange of school happenings and invited events such as science fairs and sports activities. At the third meeting an exchange of email and phone numbers was instituted by one grade group, and a meeting was arranged to take place at the annual Northeast Alberta Teachers' Association convention. Mary shared that,

> It was great. I spent more time with members from the group than I did with members of my own staff.

The collaborative project group meetings were noisy affairs, with a productive conversational "buzz." Committee members were on task, they challenged each other, and they felt freer to state opinions and disagree without fear of being ridiculed for their views than was believed possible even at their respective schools. Roles that support the

individual strengths of collaborative project group members developed in each of the grade level groups. There was more movement from grade group to grade group as more meetings were held. Where initially grade groups needed prompting to move to discuss tasks and grade alignment of outcomes, by the third meeting this happened spontaneously. At break times, more mingling between grade groups occurred as members sought out each other to take up threads of conversation from the last meeting. Some groups felt that gender and the size of the group played a role in their interactions. At this point there is little indication that either factor plays any role in the success of the group other than as dictated by personal preference. Further analysis may change this.

Future Plans from Participants

Most group members remain enthusiastic and excited by their work on the collaborative committee. Recently approximately half of the group conducted inservice presentations for other teachers in the jurisdiction, providing the philosophy underpinning the development of the performance assessment tools (i.e., the primary mandate of the collaborative project group) in NSD. These inservice presentations to teaching colleagues provided specific instruction in the use of scoring rubrics, and discussion of instructional strategies that had been successful for the developers as they piloted the tools in their own classrooms. Collaborative group members, who conducted inservice sessions, thought it a positive experience and all collaborative project group members have volunteered to provide similar sessions in the future.

While all teachers had some experience explaining the nature of their work on the collaborative project group to their own staff, two teachers provided longer workshop

sessions for their school staffs. The materials they had prepared for these sessions were sought after by the other members of the committee to use in their schools.

All through the year, committee members have been helpful with suggestions for improvement of both the student performance assessment materials they created, and the processes used to develop the tools. Suggestions from the collaborative project group participants included:

1. Having more opportunities to interact at social events. Participants enjoyed the initial focus group convened for this study and remember it as an enjoyable social event and not as part of a research study.
2. Being made aware of the names of committee members outside of the grade level groups. Teachers suggested the creation of a contact list of all collaborative project group members be circulated at the first meeting in the new school year.
3. The creation of a school service document containing all the training materials for teachers, the tasks and scoring guides from previous years assessment materials, and instructional strategies collected from their discussions in the collaborative group meetings and the training sessions for teachers.
4. Specific item writing sessions during the summer. Collaborative group members believed if a pool of tasks could be developed prior to the next years' meetings, valuable time could be gained in matching these tasks to curriculum.
5. A session for administrators conducted by members of the collaborative group detailing the process used to create the student performance assessment tools.

Discussion

There are indications that efficacy beliefs are strengthened and enhanced by participation in the collaborative project group. The initial administration of the TES showed higher scores for teachers involved in the collaborative project group than for other new teachers in the jurisdiction. This may be that teachers who agree to participate in a collaborative group project such as described in this study already possess higher personal teaching efficacy levels than other teachers. The majority of teachers in the collaborative group are female (n = 13) and elementary teachers; levels of personal teaching efficacy have been shown to be higher for both female (Guskey, 1982) and for elementary teachers (Anderson, Greene, & Loewen, 1988; Raudenbush, Rowen, & Cheong, 1992).

Interview data supports changes in efficacy beliefs since the inception of the collaborative group project. Strengthening and enhancing the efficacy beliefs of prospective teachers (Hoy & Woolfolk, 1990; Housego, 1992) has generated a great deal of research interest, but fostering stabilization or increase in efficacy beliefs in practicing teachers is not documented. One respondent, who met the qualifications for marking provincial achievement exams, initially declined to do so because she felt that she needed more teaching experience in the subject. By the end of the third meeting, she insisted her name be added to the jurisdiction's list of markers because she now believed herself to possess the requisite knowledge and skills.

During interviews, teachers report that mid-way through the school year they felt on track and in control of their program. Increased confidence in teaching experiences is the result of mastery experiences (Bandura, 1977). The conversations and support from

the collaborative group may convince teachers to persist with strategies they may not have continued without the conversations in the collaborative group.

Teachers believe they have high expectations for student success and are supported in these beliefs by the other teachers in the collaborative project group. Some have increased their expectations for their students based on the experiences and the urging of other members in the group. This supports Ross's (1994) findings that as teachers work together, they may persuade one another of their competence, increasing feelings of efficacy and further stimulating future collegial interaction.

Teachers believe their increased knowledge of the curriculum gained through group discussions has impacted their instructional practices. On this point, Mary said,

> It's all so easy. You just have to be shown the way. It makes me think about ways I can group curriculum. All you have to do is have someone point it out.

Several teachers believe they would not be so sure that they were on track if it were not for the encouragement and discussion with other members of the collaborative project group. This supports evidence that teachers with higher efficacy scores are more willing to implement innovative programs and persist with implementation (Guskey, 1988; Smylie, 1988; Ross, 1992). These findings suggest that the support from the group enhances existing feelings of efficacy and provides teachers with the confidence to take the risk of attempting strategies suggested by others in the collaborative project group. Miranda shared that,

> Talking about issues in the group, it was like I gave myself permission to try innovative practices.

Martha further explained this point when she said,

> Knowing there were others with similar students and the same problems was confirming for me. I talk to my friends in larger centres, but the issues are not the

> same. It was good to know some of my students are better and some are worse than hers [grade group member] but good to know we were dealing with the same issues.

Teachers reported changes in their classroom practices they believe have led to better understanding by their students of particular concepts in the school curricula. While the literature neither supports nor disproves this contention specific to curriculum knowledge, other research has demonstrated that reciprocal feedback among teachers has a substantial impact on implementation of inservice programs (Little, 1990; Fullan & Stiegelbauer, 1991).

Teachers felt that they would not have come to these changes on their own, or if they did try them it would not have been so early in the year. This supports Bandura's (1986) assertion that the potency of persuasion depends on the credibility, expertise, and trustworthiness of the persuader. The trust developed in the collaborative group may be the encouragement teachers require to make changes. Michael described this insight in the following comment,

> I've been trying to get the kids into their own personal thinking and get rid of one-word answers. I introduced Venn diagrams to give them the idea of comparing. I don't know if I would have thought about using them in Grade 4. I used them when I taught Grade 7.

Conclusions and Recommendations

The following conclusions present themselves from the findings of this study. They are linked to recommendations for further research and policy decisions.

1. Collaboration is a useful tool for stabilizing and enhancing efficacy beliefs. The role of social support encourages teachers to try things they either had not thought of or were reluctant to attempt. When others report success with a particular strategy or technique, the trust established

through the sustained support of the group encourages teachers to try the new strategy, or persist when previous attempts have been less than satisfactory.

2. Small schools or perhaps schools generally do not provide the same opportunities for collaboration that activities external to the school and devoted exclusively to a common activity do. Time to really discuss subjects of interest and to listen to another relate the happenings in a class, or describe techniques that are successful, is at a premium in most schools.
3. Teachers find such outside experiences as the collaborative group useful and enriching to their own instructional practice and their view of themselves both as persons and as professionals.
4. As a staff development model to promote lasting change and work force stability, this is successful for districts like NSD.
5. The support offered at the school level by administration is necessary for teachers to conduct their work in the collaborative project group. Teachers may learn valuable leadership skills from the modeling that occurs by jurisdictional leaders in the collaborative project group sessions.

Recommendations for future research and policy

Preliminary results indicate that for jurisdictions with similar characteristics to Northland School Division No. 61, the formation of on going collaborative project groups such as this one can be an effective way to conduct staff development. Teachers do

build professional relationships with their colleagues through their group work. Although professional development opportunities are available to teachers in NSD, few are tailored to the particular community dynamics experienced by teachers there. Those dynamics include language development issues, limited English proficiency of both adults and children in the community, small schools, geographically isolated communities with predominantly aboriginal populations, teaching assignments which can be outside of teachers' training path because of the small size of schools, distance from support services and major centers.

Increased expectations for students and understanding of curricula. The social support in the group led to stated changes in both expectations for student and increased understanding of curricula. If teachers' are understating better what they are teaching, and if their expectations for students are heightened, it follows that student results will be increased as well. Future research might study the link between the stated expectations of teachers involved in collaborative project groups and the results obtained by their students in academic tests.

Culturally different students. For teachers coming into a culturally different community, the reassurances provided by members of a collaborative group may help teachers to realign their expectations and set aside their cultural stereotypes. Teacher expectations of academic performance for culturally different students, particularly aboriginal would be a subject worth pursuing, particularly in communities such as described in NSD.

Modeling of leadership roles. The modeling of leadership roles by the jurisdictional organizers provides the participants with skills and strategies for leading

workshops and staff development at the school level. With many boards concerned about an impending teacher shortage, it will be crucial to find better ways within schools and school systems to nurture, support, and modify teachers' beliefs in themselves, and provide useful professional development opportunities that fit with teachers' work lives. With an aging teaching force, and an impending teacher shortage, it is critical for jurisdictions to grow their own future leaders. Collaborative project groups such as this one provide a supported training ground for future leaders to rehearse and perfect their skills. Future studies might follow teachers who have participated in collaborative group activities, to examine what leadership roles they adopt in their own schools. If this link were perceptible, this would present a strong argument to remote or geographically scattered school jurisdictions to institute similar collaborative undertakings to assist with training of future leaders.

Retention of staff. At this time it appears, that many members of the present collaborative group anticipate continuing their involvement for the 2001-2002 school year. This implies they are planning to continue employment with the jurisdiction. Perhaps having a connection with individuals outside of the school community provides teachers with a sense of connection to the jurisdiction as a whole. Future studies might examine the relationship between participation in such a collaborative project group and retention of staff. For jurisdictions with similar characteristics as NSD, the formation of collaborative project groups, which cross school boundaries might be a valuable incentive for the attraction and retention of staff.

School based collaboration. The formation of collaborative external groups could be used to model and teach the collaborative skills necessary for in-school collaboration.

Further research could determine if participants in this collaborative project group transfer their skills to initiatives within their own school communities. Future studies might consider investigating school based collaborative groups lead by teachers who had participated in this collaborative group to determine if observed skills transferred from the external setting to the school setting.

Administrator support. It is apparent that support from the school administrator was critical to participation in the collaborative project group. While teachers were aware of this necessity, it is uncertain if administrators were as aware of how their support contributed to the success of the group. A qualitative study detailing administrators' insights and perceptions of their role in support of collaborative project groups such as described would add a dimension to knowledge of how administrators perceive their role in such endeavors.

Theoretical Significance and Practical Importance

This study has both theoretical and practical significance. It adds knowledge to the ability of teacher efficacy beliefs to be sustained, supported and enhanced in a sustained collaborative project group. It suggests that teacher efficacy is a more malleable construct than previously believed (Guskey, 1984; Stein & Wang, 1988; Ross, 1994). The reflections and insights from teachers involved in this study provide knowledge on what this experience is like in the setting described for the teachers involved and how this compares and contrasts with what is presently known from the literature.

While the move toward collective efforts, cooperation, and collaboration is certainly present in the educational literature, not much is known about how social

interaction supports and enhances teachers belief systems. This study provides important information in this area.

With the focus in Alberta on accountability and on improved student results, many jurisdictions are struggling with ways to provide the skills and tools teachers need in order to help students obtain the results parents and government are demanding. Band run schools, rural jurisdictions, and school districts with significant numbers of English Second Language students may be interested in the findings from this study. There is presently keen interest from Federal Indian reserves, band-run schools, and provincial schools in situations similar to NSD, in the process of performance assessment task development and its influence on student achievement.

The insights and descriptions provided by the teachers suggest a model for similar collaborative undertakings in small schools, either geographically remote, or with aboriginal populations. The insights gained from teachers involved contribute practical strategies to construct a model for establishing and sustaining other collaborative project groups for the purpose of teachers' professional growth. If using collaborative working groups is perceived to contribute to an increase, or at the very least, a stabilization and enhancement of present levels of efficacy beliefs, this kind of staff development model would prove very useful to school jurisdictions with concerns similar to the one in which the study was conducted, such as desire for increased student achievement, retention of teaching force, and ongoing jurisdictionally relevant professional development.

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Appendix A

Preliminary Individual Interview Schedule

1. Why did you agree to participate in this project?
2. Tell me about your classroom.
3. How do you think this project fits with your work in the classroom?
4. Tell me about your school and community.
5. How is your work on this project perceived in your school by your teaching colleagues?
6. How do you think this project fits with your work in the context of the community?
7. How is your work on this project perceived in your school by administration?
8. How is your work on this project perceived in your school by community-based staff?
9. How is your work on this project perceived in your school by your students?
10. How is work in a group like this is helpful to teachers as a profession?
11. What are some barriers or difficulties for you in a project such as this?
12. What do you believe participation in such a project will help you do better?
13. Can you tell me about an experience or event from the collaborative group meeting that is particularly valuable to you?
14. How has your participation in the project changed your classroom practice? Can you give me some examples?
15. Is there anything else you would like to tell me? Something I should have asked but didn't?

Appendix B

Script and Discussion Schedule for Focus Group

Preamble:

Welcome and thanks for participating in this discussion group tonight. My intention is to give some background to the performance assessment project you have consented to be part of, tell you about the research I am intending to do as part of the project, and hear from you some the issues around working in Northland School Division and your experiences, expectations and insights abut the work of a group such as this. The letter I sent you earlier outlined some of the topics we might explore.

I would like to know what your thoughts are around this process. I am interested in hearing your thoughts on:

- why you agreed to participate
- how the project fits with your teaching
- how it is perceived in your school
- what others in your school think about it
- how groups such as this are helpful to teachers
- what are some barriers for you in a project such as this
- what do you believe participation in such a project will help you do better
- anything you believe to be useful to the project.